

ABSTRACT

Deriving a three-dimensional panorama from a plurality of images of a scene generated by a range imaging camera of the type that produces ambiguities in range information includes the steps of: (a) acquiring a plurality of adjacent images of the scene, wherein there is an overlap region between the adjacent images and at least some of the adjacent images are range images; (b) providing offset data for the range images in order to recover corrected relative scene spatial information and provide a corrected range image, and (c) deriving a three-dimensional panorama from the corrected range image. In order to provide offset data, a relative range difference is detected between adjacent range images as a constant offset between the adjacent images; and the constant offset is applied to at least one of adjacent range images to correct for ambiguities in the relative ranges of the range images.

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